## **CLAIMS:**

1	1.	A communication system comprising:
2		an optical transmission network having an input end and an output end;
3		a wavelength division multiplexer coupled to said input end of said optical
4		transmission network, said wavelength division multiplexer being configured to
5		receive data packets directly from each internet-traffic source in a plurality of
6		internet-traffic sources and to modulate, in response to said data packets, a
7		corresponding plurality of optical beams, each of said optical beams having a
8		selected wavelength; and
9		a wavelength division demultiplexer coupled to said output end of said optical
្នើ 10		transmission network, said wavelength division demultiplexer being configured
110		to select a particular optical beam from said plurality of optical beams and to
12		retrieve data packets therefrom.
13	2.	The communication system of claim 1 wherein said wavelength division multiplexed
14		comprises:
10		a plurality of wavelength translators, each of said wavelength translators being
16		directly connected to an internet-traffic source from said first plurality of
17		internet-traffic sources and configured to modulate an optical beam in response
18		to data packets received from said internet-traffic source, said optical beam
19		having a selected wavelength;
.0		maxing a serected mavelength,
20		an optical coupler in communication with each of said wavelength translators and
21		coupled to said input end of said optical transmission network.
22	3.	The communication system of claim 1, wherein said communication system further
23		comprises:
24		a plurality of wavelength translators, each of said wavelength translators being
25		directly connected to an internet-traffic destination selected from a plurality of

26		internet-traffic destinations and being configured to provide data packets
27		received from said demultiplexer to said internet-traffic destination.
28	4.	The communication system of claim 1, further comprising a first SONET interface
29		coupled to said input end of said optical transmission network, said first SONET
30		interface being configured to receive data from a SONET-traffic source packaged in a
31		SONET frame for transmission on said optical transmission network on a selected
32		wavelength dedicated to SONET traffic.
33	5.	The communication system of claim 4, further comprising a second SONET interface
34		coupled to said output end of said optical transmission network, said second SONET
35		interface being configured to retrieve said SONET frame from said optical
36		transmission network and to provide said data contained therein to a SONET traffic
37 38 38 39		destination.
1≡ 1≡ 38	6.	The communication system of claim 1, wherein said optical transmission network
39		comprises an optical fiber configured for data transmission at rates of OC-192 or
40		greater.
1 41 1 41	7.	A method comprising:
41 42 42		providing an optical transmission network having an input end and an output end;
43		coupling a wavelength division multiplexer to said input end of said optical
44		transmission network,
45		configuring said wavelength division multiplexer to receive data packets directly
46		from each internet-traffic source in a plurality of internet-traffic sources and to
47		modulate, in response to said data packets, a corresponding plurality of optical
48		beams, each of said optical beams having a selected wavelength;
49		coupling a wavelength division demultiplexer to said output end of said optical
50		transmission network, said wavelength division demultiplexer; and

51		configuring said wavelength division demultiplexer to select a particular optical
52		beam from said plurality of optical beams and to retrieve data packets therefrom.
53	8.	The method of claim 7 wherein said coupling said wavelength division multiplexer
54		comprises:
55		connecting each of a plurality of wavelength translators directly connected to an
56		internet-traffic source from said first plurality of internet-traffic sources;
57		configuring each of said wavelength translators to modulate an optical beam in
58		response to data packets received from said internet-traffic source, said optical
59		beam having a selected wavelength;
60		coupling an optical coupler in communication with each of said wavelength
61		translators to said input end of said optical transmission network.
61	9.	The method of claim 7, wherein said method further comprises:
63		coupling a plurality of wavelength translators to said internet-traffic destination,
19 04		each of said wavelength translators being directly connected to an internet-traffic
65		destination selected from a plurality of internet-traffic destinations and being
65 14 66 14 67		configured to provide data packets received from said demultiplexer.
67	10.	The method of claim 7, further comprising coupling a first SONET interface to said
68		input end of said optical transmission network, said first SONET interface being
69		configured to receive data from a SONET-traffic source packaged in a SONET frame
70		for transmission on said optical transmission network on a selected wavelength
71		dedicated to SONET traffic.
72	11.	The method of claim 10, further comprising coupling a second SONET interface to
73		said output end of said optical transmission network, said second SONET interface
74		being configured to retrieve said SONET frame from said optical transmission
75		network and to provide said data contained therein to a SONET traffic destination.

The method of claim 7, wherein providing said optical transmission network
comprises an providing an optical fiber configured for data transmission at rates of
OC-192 or greater.